

Model Development Phase Template

Date	30April2024
Team ID	Team-737850
Project Title	FetalAI: Using Machine Learning To Predict And Monitor Fetal Health
Maximum Marks	5 Marks

Feature Selection Report Template

In the forthcoming update, each feature will be accompanied by a brief description. Users will indicate whether it's selected or not, providing reasoning for their decision. This process will streamline decision-making and enhance transparency in feature selection.

Feature	Description	Selected (Yes/No)	Reasoning
Baseline value	The baseline value in FetalAI represents the fundamental parameter used to assess the normal functioning of fetal health during pregnancy.	No	Fundamental parameter assessing normal fetal health during pregnancy monitoring.
accelerations	Accelerations in FetalAI denote temporary increases in fetal heart rate, indicating fetal well-being and vitality during pregnancy monitoring.	Yes	Temporary increases in fetal heart rate signaling well-being during pregnancy monitoring.
Fetal_movement	Detecting and analyzing baby's in utero movements for assessing fetal well-being in pregnancy monitoring.	No	Spontaneous motions indicating fetal well-being during pregnancy monitoring.

Uterine_ contractions	Monitoring and analyzing womb contractions for labor progression and fetal well-being in pregnancy.	No	Monitoring womb contractions for labor progression and fetal well-being in pregnancy.
Light_ declarations	Minor variations in fetal heart rate indicating transient stress or distress during pregnancy monitoring.	No	Minor variations in fetal heart rate, reflecting transient stress or distress during pregnancy monitoring.
Severe_ declarations	Significant deviations in fetal heart rate patterns indicating acute distress or critical conditions during pregnancy monitoring.	No	Significant deviations in fetal heart rate indicating acute distress or critical conditions during pregnancy monitoring.
Prolongued_ declarations	Prolonged deviations in fetal heart rate patterns suggesting sustained stress or distress during pregnancy monitoring.	Yes	Prolonged deviations in fetal heart rate indicating sustained stress or distress during pregnancy monitoring.
Abnormal_ short_term_ variability	Irregular fluctuations in fetal heart rate, indicating short-term deviations from normal patterns during pregnancy monitoring.	Yes	Irregular fluctuations in fetal heart rate, signifying short-term deviations from normal patterns during pregnancy monitoring.
Mean_ value_ of_ short_ term_ variability	Mean value indicating fetal heart rate's short-term variability, vital for assessing fetal well-being during pregnancy.	No	Mean value indicating fetal heart rate's short-term variability, essential for assessing fetal well-being during pregnancy.
Percentage_ of_ time_ with_ abnormal_ long_ term_ variability	Measures the duration of abnormal long-term variability in fetal heart rate patterns during pregnancy monitoring.	Yes	Duration of abnormal long-term variability in fetal heart rate patterns during pregnancy monitoring.
Mean_ value_ of_ Long_ term_ variability	Mean value indicating long-term variability in fetal heart rate, crucial for assessing fetal well-being during pregnancy.	Yes	Mean value indicating long-term variability in fetal heart rate, crucial for assessing fetal well-being during pregnancy.

Histogram_width_Histogram_min	Width of histogram bin with minimum fetal heart rate, indicating variability in pregnancy monitoring.	No	Width of histogram bin with minimum fetal heart rate, indicating variability in pregnancy monitoring.
Histogram_max	Maximum value of fetal heart rate histogram, indicating variability in pregnancy monitoring.	No	Maximum value of fetal heart rate histogram, indicating variability in pregnancy monitoring.
Histogram_number_of_peaks	Number of peaks in fetal heart rate histogram, indicating variability in pregnancy monitoring.	No	Number of peaks in fetal heart rate histogram, indicating variability in pregnancy monitoring.
Histogram_number_of_zeroes	count of zeroes in fetal heart rate histogram, indicating periods of absence in pregnancy monitoring.	No	Count of zeroes in fetal heart rate histogram, indicating absence in pregnancy monitoring.
Histogram_mode	Mode of fetal heart rate histogram, indicating most frequent rate for pattern assessment in pregnancy monitoring.	Yes	Mode of fetal heart rate histogram, indicating most frequent rate for pattern analysis in pregnancy monitoring.
Histogram_median	Median of fetal heart rate histogram, indicating central tendency for distribution assessment in pregnancy monitoring.	Yes	Median of fetal heart rate histogram, indicating central tendency for distribution assessment in pregnancy monitoring.
Histogram_variance	Variance of fetal heart rate histogram, indicating dispersion for variability assessment in pregnancy monitoring.	Yes	Variance of fetal heart rate histogram, indicating dispersion for variability assessment in pregnancy monitoring.
Histogram_tendency	Tendency of fetal heart rate histogram, indicating distributional shifts for pattern analysis in pregnancy monitoring.	No	Tendency of fetal heart rate histogram, indicating distributional shifts for pattern analysis in pregnancy monitoring.